

REMARKS

Further and favorable reconsideration is respectfully requested in view of the foregoing amendments and following remarks.

Table 2 on page 60 of the specification has been revised to change both occurrences of R^2 to R^3 , to be consistent with formula (I) on page 4 of the specification, and in claims 1, 20 and 21.

Claims 12, 13, 15 and 22 have been cancelled.

Claim 21 has been amended so that the definition for R^2 is consistent with the definition for R^2 in claim 1. This is actually an amendment which should have been made in claim 21 at the time the definition for R^2 was amended in claim 1.

Attached hereto is a marked-up version of the changes made to the specification and claim 21 by the current amendment. The attached pages are captioned "**Version with markings to show changes made.**"

New claims 29-32 have been added to the application. Claims 29 and 30 correspond to cancelled claim 12, and claims 31 and 32 correspond to cancelled claim 15. Claims 29 and 31 are directed to preventing the appearance and proliferation of the recited fungi, and claims 30 and 32 are directed to exterminating the recited fungi. The fungi in all of these new claims are disclosed at page 62, line 8, page 63, line 13 and page 64, line 19 of the specification.

The rejection of claims 12-15 under the first paragraph of 35 U.S.C. §112 is respectfully traversed.

This rejection is essentially a repetition of the rejection of claims 12-15 under the first paragraph of 35 U.S.C. §112 in the earlier Office Action. In responding to such rejection, Applicants noted that the prevention aspect of the present invention is enabled by the specification, particularly in view of Test Examples 2-5 beginning on page 61 of the specification, wherein the acetone solution of the compound was applied to plants before the fungus was inoculated. The results of these Test Examples show that the claimed compounds effectively prevent fungal disease in the plants.

In response to the Examiner's argument that R^2 is too broad, Applicants previously amended claim 1 to restrict the breadth of R^2 . A similar restriction on the breadth of R^2 has now been made, as set forth above, in claim 21.

As further noted in Applicants' previous response, the antifungal activity of the compounds is supported by the biological tests in Test Examples 1-6 in the specification. More specifically, Tables 3-4 show the antifungal activity of the compounds of Examples 4, 8, 17 and 39.

In the current Office Action, the Examiner fails to respond to Applicants' previous arguments and amendments in connection with this rejection. The Examiner is kindly requested to reconsider these arguments and amendments, along with the current amendments to claim 21, and to withdraw the rejection.

The rejection of claims 1, 3 and 22 under the second paragraph of 35 U.S.C. §112 is respectfully traversed.

The Examiner takes the position that it is not clear what substituents Applicants are talking about in claim 1.

However, claim 1 recites that R² is a benzoic acid residue having a substituent, a nicotine acid residue having a substituent, or a quinoxalinecarboxylic acid residue having a substituent, followed by the phrase "wherein the substituent is selected from the group consisting of . . .", clearly defining the substituent for each of the benzoic acid residue, nicotine acid residue and quinoxalinecarboxylic acid residue.

Accordingly, this rejection should be withdrawn.

The rejection of claims 12, 13 and 15 under the second paragraph of 35 U.S.C. §112 is respectfully traversed.

In response to paragraph A of this rejection, and as indicated above, claims 12 and 15 have been replaced by new claims 29-32, wherein claims 29 and 31 are directed to preventing the appearance and proliferation of the fungi, and claims 30 and 32 are directed to exterminating the fungi. Claims 29 and 30 are directed to use for agricultural or garden plants, and claims 31 and 32 are directed to use for industrial products or in the course of production of industrial products.

In response to paragraph B of this rejection, claim 13 has been cancelled.

In item 3 on page 5 of the Office Action, the Examiner suggests restricting out the quinolinecarboxylic acid residue having a substituent, the pyrimidine carboxylic acid residue having a substituent, and the quinoxalinecarboxylic acid residue having a substituent.

However, claim 1 has already been limited to compounds wherein R² is benzoic acid residue having a substituent, a nicotine acid residue having a substituent, and a quinoxalinecarboxylic acid residue having a substituent. The compounds where R² is a quinolinecarboxylic acid residue having a substituent or a pyrimidine carboxylic acid residue having a substituent have already been restricted out of claim 1.

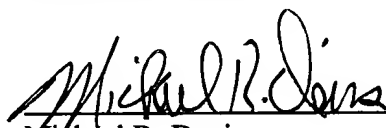
With regard to the quinoxalinecarboxylic acid residue having a substituent, as Applicants previously pointed out, this embodiment of the invention has been retained in claim 1 since the compound of Example 8 has this residue.

Therefore, in view of the foregoing amendments and remarks, it is submitted that each of the grounds of objection and rejection set forth by the Examiner has been overcome, and that the application is in condition for allowance. Such allowance is solicited.

Respectfully submitted,

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By:



Michael R. Davis

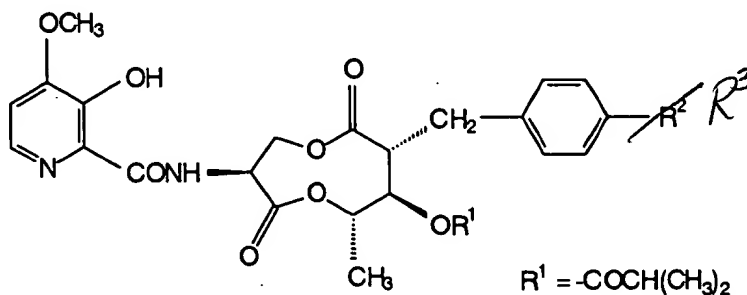
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Table 2



Ex.	R ^{R²}
53	NO ₂
54	NH ₂
55	HCONH
56	(CH ₃) ₂ N

5

Test Example 1: Evaluation test on antifungal activity

The antifungal activity was tested using *Saccharomyces cerevisiae* IFO 0203 by the following method.

(1) Medium

10	Sabouraud medium (pH 5.5-6.0)	
	Glucose	40 g/L
	Polypeptone	10 g/L
	Assay medium (pH unadjusted)	
	Yeast ext. (DIFCO)	10 g/L
15	Polypeptone	20 g/L
	Glycerol	30 g/L
	Bacto-agar (DIFCO)	20 g/L

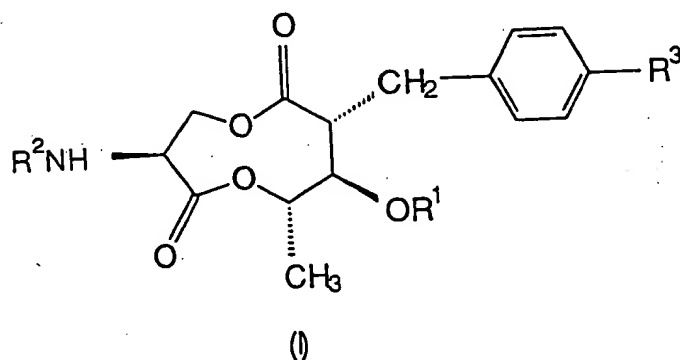
(2) Preparation of assay fungi

One platinum loop of the fungi was inoculated into the
20 Sabouraud liquid medium (10 mL/sextant testing tube),
followed by shaking cultivation at 26°C for 24 hr (360 rpm;
tube shaker).

(3) Preparation of assay plate

A lower layer (agar 20 g/L) was spread on an assay plate.
25 The assay medium for an upper layer was heat melted, and then

21. (New) A compound represented by formula (I) or a salt thereof:



wherein

R¹ represents isobutyryl, tigloyl, isovaleryl, or 2-methylbutanoyl;

R² represents a hydrogen atom, an aromatic carboxylic acid residue excluding a 3-hydroxy-4-methoxypicolinic acid residue, or represents a protective group of amino; and

R³ represents nitro, amino, acylamino, or N,N-dialkylamino.

R¹ represents isobutyryl, tigloyl, isovaleryl, or 2-methylbutanoyl;

A ~~R² represents a hydrogen atom,~~ a benzoic acid residue having a substituent, a nicotine acid residue having a substituent, or a quinoxalinecarboxylic acid residue having a substituent, wherein the substituent is selected from the group consisting of hydroxyl, halogen atoms, nitro, amino, diC₁₋₆alkylamino, formylamino, C₁₋₆alkyl, C₁₋₆alkoxy, benzyloxy, C₁₋₁₀aliphatic acyloxy, benzoyloxy, C₁₋₄alkyloxycarbonyloxy, (C₁₋₄)alkyloxycarbonyl(C₁₋₄)alkyloxy, p-nitrobenzyloxycarbonyl(C₁₋₄)alkyloxy, C₁₋₆alkylsulfonyloxy, di(C₁₋₆)alkylphosphoryloxy, and diphenylphosphoryloxy ~~and~~

R³ represents a hydrogen atom.